CLAIMS

What is claimed is:

1. A computer executable data structure comprising:

a first data structure that describes one or more classes which define programmatic objects;

a second data structure that describes members of each class; and

a third data structure that describes relationships between objects, wherein the described classes, members, and relationships provide information that can be utilized by a computer to persist object data to a database.

2. The data structure of claim 1, wherein members of a class include fields and properties.

3. The data structure of claim 2, wherein a field includes a key attribute that defines whether the field is an object key.

4. The data structure of claim 2, wherein the properties include a path attribute that delimits the context of a class.

5. The data structure of claim 2, wherein the member properties include an alias attribute to identify a public member that is to be utilized in place of a private member.

6. The data structure of claim 1, wherein the members are compound members comprising members and other compound members.

7. The data structure of claim 6, wherein the compound member is an array.

8. The data structure of claim 6, wherein the compound member includes a type attribute that defines the type of data identified by the compound member.

9. The data structure of claim 1, wherein the third structure includes a type attribute that defines relationships between objects.

10. The data structure of claim 9, wherein the relationship is one of one-to-one, one-to-many, or many-to-many.

11. The data structure of claim 1, wherein the database is a relational database.

12. The data structure of claim 1, wherein the first, second and third data structures are XML structures.

13. An object schema generation system comprising:

a code reader component adapted to read code from a program or set of programs;

an object schema generation component that retrieves or is provided with code from the code reader component and produces an object schema which provides metadata concerning objects to facilitate persistence of object data to a data store.

14. The system of claim 13, further comprising a data store information component adapted to provide the schema generation component with information concerning the data store.

15. The system of claim 13, wherein the data store is a relational database.

16. The system of claim 15, wherein the program is specified in an object oriented language.

17. The system of claim 16, wherein the program contains a plurality of object classes and fields.

18. The system of claim 17, wherein the object schema is specified in an extensible markup language.

19. The system of claim 18, wherein the object schema provides information concerning classes, members of classes, and their relationships.

20. The system of claim of claim 13, wherein the object schema generation component utilizes rule based artificial intelligence to produce the schema.

21. The system of claim 13, wherein the object schema generation component employs a Bayesian network to infer proper schema structures and relationships.

22. A method for producing an object schema comprising:
specifying classes to be persisted to a data store;
identifying members of each class;
specifying relationships between classes.

23. The method of claim 22, wherein the classes represent objects defined by an object oriented language.

24. The method of claim 23, wherein the data store is a relational database.

25. The method of claim 22, further comprising specifying a member key.

26. The method of claim 22, further comprising identify a name of a member to be used as an alias utilized to query a private member.

27. The method of claim 22, wherein the member associated with a class is a field or property.

28. The method of claim 27, wherein the member is a compound member comprising at least one field or property and another compound member.

29. The method of claim 28, wherein the compound member is an array.

30. The method of claim 22, wherein the relationship between classes is one of one-to-one, one-to-many, and many-to-many.

31. The method of claim 22, wherein specifying class relationships comprises specifying a parent class and a child class.

32. The method of claim 31, further comprising specifying child members associated with the parent and child classes.

33. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 22.

34. A method for generating an object schema comprising:

receiving program code defining objects;

receiving input from a developer;

generating an object schema to be employed to facilitate mapping object components from an object oriented program to tables in a relational database.

35. The method of claim 34, wherein the developer provides input *via* a graphical user interface.

36. The method of claim 34, wherein the generated object schema is utilized together with a relational schema and a mapping schema to map object components to tables.

37. The method of claim 34, wherein the schema is an XML schema.

38. The method of claim 34, wherein receiving input from a developer comprises identifying classes to be persisted and specifying relations amongst classes.

39. A computer readable medium having stored thereon computer executable instructions for carrying out the method of claim 34.